said first reacted precursor portion is different than said one material property of said second reacted precursor portion and said reacted precursor particles are collected in a controlled manner wherein said first reacted precursor portion and second reacted precursor portion can be separately identified and tested for said material property.

13. (Amended) A method as recited in Claim 1, wherein said collecting step comprises collecting said first reacted precursor portion at a first location on a substrate and collecting said second reacted precursor portion at a second location on said substrate.

31. (Amended) A method for the fabrication and analysis of particulate materials, comprising the steps of:

a) providing a precursor composition comprising at least a first precursor component and a second precursor component to a reactor;

b) continuously reacting said precursor composition under at least a first reactor condition to form reacted precursor particles wherein said reactor condition is varied in a controlled manner and on a real-time basis such that said reacted precursor particles comprise a first reacted precursor portion at a first time and a second reacted precursor portion at a second time and at least one material property of said first reacted precursor portion is different than said one material property of said second reacted precursor portion; and

c) analyzing said first reacted precursor portion and said second reacted precursor portion for said at least one material property.

Please add the following new Claims:

64. (New) A method for the fabrication of a plurality of particulate materials, comprising the steps of:

a) continuously providing a precursor composition to a reactor;

b) continuously reacting said precursor composition in said reactor under at least one reactor condition to form reacted precursor particles; and

c) collecting said reacted precursor particles, wherein said precursor composition is varied in a controlled manner and on a real-time basis such that said reacted precursor particles comprise a first reacted precursor portion at a first time and a second reacted precursor portion at a second time and at least one material property of said first reacted precursor portion is different than said one material property of said second reacted precursor portion, wherein said precursor composition is varied on a real time basis and said first reacted precursor portion has a different chemical composition than said second reacted precursor portion.

65. (New) A method as recited in Claim 64, wherein said at least one reactor condition is varied on a real-time basis.

66. (New) A method as recited in Claim 64, wherein said at least one reactor condition is reactor temperature and said reactor temperature is varied on a real-time basis.

67. (New) A method as recited in Claim 64, wherein said precursor composition comprises at least a first precursor component and a second precursor component and wherein the concentration of at least one of said first and second precursor components in said precursor composition is varied on a real-time basis.

68. (New) A method as recited in Claim 64, wherein said precursor composition comprises at least a first precursor component and a second precursor component and wherein the concentration of at least one of said first and second precursor components in said precursor composition is varied on a real-time basis at a rate of from about 0.1 weight percent per minute to about 10 weight percent per minute.

69. (New) A method as recited in Claim 64, wherein said precursor composition comprises a flowable liquid.

70. (New) A method as recited in Claim 64, wherein said precursor composition comprises a flowable liquid and said step of providing a precursor composition comprises dispersing said precursor composition to form dispersed droplets.

71. (New) A method as recited in Claim 64, wherein said precursor composition is a substantially dry powder.

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72. (New) A method as recited in Claim 64, wherein said reactor is a hot wall reactor.

73. (New) A method as recited in Claim 64, wherein said reactor is a plasma reactor.

74. (New) A method as recited in Claim 64, wherein said reactor is a flame reactor.

75. (New) A method as recited in Claim 64, wherein said collecting step comprises collecting said first reacted precursor portion at a first location on a substrate and collecting said second reacted precursor portion at a second location on said substrate.

76. (New) A method as recited in Claim 64, further comprising the step of heating said reacted precursor particles after said collecting step.

77. (New) A method as recited in Claim 64, wherein said collecting step comprises depositing said reacted precursor on a substrate to form a linear feature comprising said reacted precursor particles and including said first reacted precursor portion and said second reacted precursor portion.

78. (New) A method as recited in Claim 64, wherein said collecting step comprises depositing said particles on a substrate by ejecting said particles through a nozzle.

79. (New) A method as recited in Claim 64, wherein said collecting step comprises depositing said particles on a substrate by ejecting said particles through a nozzle onto a continuously moving substrate.

80. (New) A method as recited in Claim 64, wherein said precursor composition comprises at least a first precursor component and a second precursor component and wherein said reacted precursor particles are composite particles.

81. (New) A method as recited in Claim 64, wherein said particulate materials comprise inorganic compounds.

82. (New) A method as recited in Claim 64, wherein said particulate materials

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comprise organic compounds.

83. (New) A method as recited in Claim 64, wherein said precursor composition comprises a monomer and said reacted precursor particles comprise a polymer.

84. (New) A method as recited in Claim 64, wherein said particulate materials comprise metal alloys.

85. (New) A method as recited in Claim 64, wherein said particulate materials comprise metal solder alloys.

86. (New) A method as recited in Claim 64, wherein said particulate materials comprise unsupported electrocatalyst materials.

87. (New) A method as recited in Claim 64, wherein said particulate materials comprise supported electrocatalyst materials.

88. (New) A method as recited in Claim 64, wherein said particulate materials comprise pharmaceutical compositions.

89. (New) A method as recited in Claim 64, wherein said particulate materials comprise phosphor compounds.

90. (New) A method as recited in Claim 64, wherein said reacted precursor particles have an average particle size of from about 1 nm to about 100 μm.

91. (New) A method as recited in Claim 64, wherein said reacted precursor particles have an average particle size of from about 5 nanometers to about 1 μm.

92. (New) A method as recited in Claim 64, wherein said reacted precursor particles have an average particle size of from about 0.5 μm to about 10μm.

93. (New) A method for the fabrication of a plurality of particulate materials, comprising the steps of:

a) continuously providing a precursor composition comprising at least a first precursor component and a second precursor component to a reactor;

b) continuously reacting said precursor composition in said reactor under at least one reactor condition to form reacted precursor particles; and

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c) collecting said reacted precursor particles, wherein the concentration of at least one of said first and second precursor components in said precursor composition is varied in a controlled manner and on a real-time basis such that said reacted precursor particles comprise a first reacted precursor portion at a first time and a second reacted precursor portion at a second time and at least one material property of said first reacted precursor portion is different than said one material property of said second reacted precursor portion.

94. (New) A method as recited in Claim 93, wherein said at least one reactor condition is varied on a real-time basis.

95. (New) A method as recited in Claim 93, wherein said at least one reactor condition is reactor temperature and said reactor temperature is varied on a real-time basis.

96. (New) A method as recited in Claim 93, wherein the concentration of at least one of said first and second precursor components in said precursor composition is varied on a real-time basis at a rate of from about 0.1 weight percent per minute to about 10 weight percent per minute.

97. (New) A method as recited in Claim 93, wherein said precursor composition comprises a flowable liquid.

98. (New) A method as recited in Claim 93, wherein said precursor composition comprises a flowable liquid and said step of providing a precursor composition comprises dispersing said precursor composition to form dispersed droplets.

99. (New) A method as recited in Claim 93, wherein said precursor composition is a substantially dry powder.

100. (New) A method as recited in Claim 93, wherein said reactor is a hot wall reactor.

101. (New) A method as recited in Claim 93, wherein said reactor is a plasma reactor.

102. (New) A method as recited in Claim 93, wherein said reactor is a flame

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reactor.

103. (New) A method as recited in Claim 93, wherein said collecting step comprises collecting said first reacted precursor portion at a first location on a substrate and collecting said second reacted precursor portion at a second location on said substrate.

104. (New) A method as recited in Claim 93, further comprising the step of heating said reacted precursor particles after said collecting step.

105. (New) A method as recited in Claim 93, wherein said collecting step comprises depositing said reacted precursor on a substrate to form a linear feature comprising said reacted precursor particles and including said first reacted precursor portion and said second reacted precursor portion.

106. (New) A method as recited in Claim 93, wherein said collecting step comprises depositing said particles on a substrate by ejecting said particles through a nozzle.

107. (New) A method as recited in Claim 93, wherein said collecting step comprises depositing said particles on a substrate by ejecting said particles through a nozzle onto a continuously moving substrate.

108. (New) A method as recited in Claim 93, wherein said reacted precursor particles are composite particles.

109. (New) A method as recited in Claim 93, wherein said particulate materials comprise inorganic compounds.

110. (New) A method as recited in Claim 93, wherein said particulate materials comprise organic compounds.

111. (New) A method as recited in Claim 93, wherein said precursor composition comprises a monomer and said reacted precursor particles comprise a polymer.

112. (New) A method as recited in Claim 93, wherein said particulate materials comprise metal alloys.

113. (New) A method as recited in Claim 93, wherein said particulate materials comprise metal solder alloys.

114. (New) A method as recited in Claim 93, wherein said particulate materials comprise unsupported electrocatalyst materials.

115. (New) A method as recited in Claim 93, wherein said particulate materials comprise supported electrocatalyst materials.

116. (New) A method as recited in Claim 93, wherein said particulate materials comprise pharmaceutical compositions.

117. (New) A method as recited in Claim 93, wherein said particulate materials comprise phosphor compounds.

118. (New) A method as recited in Claim 93, wherein said reacted precursor particles have an average particle size of from about 1 nm to about 100 μm.

119. (New) A method as recited in Claim 93, wherein said reacted precursor particles have an average particle size of from about 5 nanometers to about 1 μm.

120. (New) A method as recited in Claim 93, wherein said reacted precursor particles have an average particle size of from about 0.5 μm to about 10μm.

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